APPENDIX J

USDA FARMLAND CONVERSION IMPACT RATING FORM (FORM CPA-106)

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Technical Memorandum

Date:	April 2015		
Project:	N-12 Niobrara East and West EIS	Job No.	84534
To:	Project File		
From:	HDR		
Subject:	Farmland Conversion		

I. Introduction

The U.S. Army Corps of Engineers (Corps) is preparing an environmental impact statement (EIS) for the proposed reconstruction of the Nebraska Highway 12 (N-12) roadway east and west of the Village of Niobrara (Niobrara), Nebraska (Project). Because the Project would have impacts on regulated waters of the U.S. and would require a Clean Water Act Section 404 permit, and because no other federal action is required, the Corps is the lead federal agency for compliance with the National Environmental Policy Act (NEPA).

The purpose of this memo is to provide a documented record of when and how the Farmland Conversion Impact Rating and associated NRCS-CPA-106 forms for Knox County, Nebraska, were completed for the Project (see Attachment A for NRCS-CPA-106 forms). The information presented in this Technical Memorandum is used to describe the existing conditions and associated impacts on alternatives carried forward for analysis in the N-12 Draft EIS. This technical memorandum has been developed prior to completion of alternative screening. Therefore, the full range of alternatives has been evaluated. Detailed information on the purpose of and need for the Project and on the alternatives carried forward for analysis is provided in the N-12 Draft EIS. The range of alternatives evaluated in this technical memorandum are[1]:

- No Action – Section 404 permit denied; new roadway not constructed
- Alternative A1 – Elevation raise on the existing N-12 alignment
- Alternative A2 – Elevation raise parallel to the existing N-12 alignment
- Alternative A3 – New roadway along the base of the Missouri River bluffs
- Alternative A4 – Same alignment as Alternative A2 but with 3.6 miles of bridges
- Alternative A7 – Same alignment as Alternative A3 but with 1.8 miles of bridges
- Alternative B1 – New roadway along the top of the Missouri River bluffs

[1] Alternatives A5 and A6 were developed as part of the bridge alternative refinement process. They were iterations of the same concept, that is, an elevated roadway following Alternative A2 alignment and Alternative A3 alignment. Due to various factors, these alternatives were not advanced. Alternatives A4 and A7 represent the elevated roadway alternatives on the Alternative A2 and Alternative A3 alignments. In addition, Alternative B2 (south of Bluffs) was eliminated from detailed analysis because it has no distinct advantages or distinguishing features from those of Alternative B1 and the east segment of B2 was determined not logistically practicable.

II. Project Description

This Project is located along N-12 in Knox County from the eastern edge of Verdel to approximately 6 miles southeast of Niobrara (see the Draft EIS, Figure 1-1, Project Location Map). The Project has been divided into two segments of N-12 that have experienced flooding and damage due to high water levels associated with the Missouri River. Segment 1 is approximately 6.4 miles long and extends from just east of Verdel, Nebraska, on the west end to 2 miles west of the bridge over the Niobrara River. Segment 2 is approximately 6 miles long and extends from just east of Spruce Avenue in Niobrara to approximately 1 mile east of Spur 54-D (S–54D).

Six build alternatives, along with the No-Build Alternative, are being carried forward for analysis in the EIS: Alternatives A1, A2, A3, A4, A7, and B1. Alternative A1 would be constructed on the current alignment of the existing highway. The roadway would be elevated 6 to 7 feet above the current elevation. Alternative A2 would be constructed parallel and adjacent to the existing highway; similar to Alternative A1, the roadway would be raised 6 to 7 feet above the current elevation of the highway. Alternative A3 would be constructed along the base of the Missouri River bluff, shifting the alignment to the south of the present alignment for much of the segments to be constructed. Alternative A4 would be constructed on the same alignment as Alternative A2, but would incorporate 3.6 miles of bridges. Alternative A7 would also be constructed along the same alignment as Alternative A3, but would incorporate an additional 1.8 miles of bridges. Alternative B1 would be constructed to the south of the Missouri River floodplain adjacent to the river bluff. New connections to Nebraska Highway 14 (N-14) and South Dakota Highway 37 (SD-37) would be constructed (see the Draft EIS, Chapter 2.0, for a complete description of the alternatives).

III. Impact Calculation

The Study Area is primarily rural, outside of any urbanized area as depicted on the U.S. Census Bureau Boundary Reference Map. The land is a mix of cropland, pasture and grassland, wooded areas, and wetlands. The areas of prime farmland used in the impact calculations included soil map units of the soil survey geographic database (SSURGO) classified as *All Areas are Prime Farmland*, *Farmland of Statewide Importance*, or *Prime Farmland if Drained*. The aforementioned soil map units located within the proposed right-of-way (ROW) would be impacted. Alternatives A1, A2, A3, A4, A7, and B1 would require conversion of approximately 29.2, 34.9, 70.8, 34.9, 70.8, and 42.7 acres of prime or unique farmland or farmland of statewide or local importance, respectively, for construction in Knox County. A preliminary review of soil classification within the proposed ROW indicates that prime farmland and farmland of statewide importance is present within the Study Area.

Below is an explanation as to how scores were calculated using Part VI Corridor Assessment Criteria. Alternatives A1, A2, A3, and A4 correspond to Corridors A, B, C, and D, respectively, in the first accompanying NRCS-CPA-106 form (Part 1). Alternatives A7 and B1 correspond to

Corridors A and B on the second accompanying NRCS-CPA-106 form (Part 2). The No-Build Alternative was not analyzed because it would have no impact on agricultural land.

A. Alternative A1 (Corridor A on NRCS-CPA-106 form 1 of 2)

Alternative A1 scored 42 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 0 out of 20 points. Less than 20 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (U.S. Department of Agriculture [USDA] 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 0 out of 25 points. The impacted area is adjacent to the existing highway and would not create any non-farmable land. All of the adjacent farmland would remain accessible from the highway or from county roads.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 2 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 29.2 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

B. Alternative A2 (Corridor B on NRCS-CPA-106 form 1 of 2)

Alternative A2 scored 42 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 0 out of 20 points. Less than 20 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (USDA 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 0 out of 25 points. The impacted area is adjacent to the existing highway and would not create any non-farmable land. All of the adjacent farmland would remain accessible from the highway or from county roads.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 2 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 34.9 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

C. Alternative A3 (Corridor C on NRCS-CPA-106 form 1 of 2)

Alternative A3 scored 55 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 5 out of 20 points. Approximately 40 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (USDA 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 3 out of 25 points. Approximately 5 acres of non-farmable land would be created just east of Niobrara, south of the existing N-12 roadway. The 5 acre area would not be farmable due to loss of access from the existing N-12 roadway. This represents approximately 7 percent of the total farmland acreage converted to non-farm uses by the Project.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 7 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment. Within this area, there would be a group of outbuildings associated with one farmstead that would be affected.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 70.8 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

D. Alternative A4 (Corridor D on NRCS-CPA-106 form 1 of 2)

Alternative A4 scored 42 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 0 out of 20 points. Less than 20 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (USDA 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 0 out of 25 points. The impacted area is adjacent to the existing highway and would not create any non-farmable land. All of the adjacent farmland would remain accessible from the highway or from county roads.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 2 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 34.9 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

E. Alternative A7 (Corridor A on NRCS-CPA-106 form 2 of 2)

Alternative A7 scored 55 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 5 out of 20 points. Approximately 40 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (USDA 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 3 out of 25 points. Approximately 5 acres of non-farmable land would be created just east of Niobrara, south of the existing N-12 roadway. The 5 acre area would not be farmable due to loss of access from the existing N-12 roadway. This represents approximately 7 percent of the total farmland acreage converted to non-farm uses by the Project.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 7 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment. Within this area, there would be a group of outbuildings associated with one farmstead that would be affected.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 70.8 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

F. Alternative B1 (Corridor B on NRCS-CPA-106 form 2 of 2)

Alternative B1 scored 58 out of 160 points on the Farmland Conversion Impact Rating for Corridor Type Projects, as follows:

1. Area in nonurban use. Scored 15 out of 15 points. Greater than 90 percent of the land within a 1-mile radius is nonurban use.
2. Perimeter in nonurban use. Scored 10 out of 10 points. Greater than 90 percent of the land borders non-urban land.
3. Percent of Corridor Being Farmed. Scored 5 out of 20 points. Approximately 40 percent of the impacted corridor is or has been farmed.
4. Protection provided by state and local governments. Scored 0 out of 20 points.
    a. Nebraska has taken the position that it has no local or state protection programs specifically addressing conversion of Prime Farmland.
5. Size of Present Farm Unit Compared to Average. Scored 10 out of 10. The average farm size for Knox County is 581 acres (USDA 2014). The average size of the farms in the impact corridor appears to be of average size.
6. Creation of Non-Farmable Land. Scored 3 out of 25 points. Approximately 3 acres of non-farmable land would be created just east of Niobrara, south of the existing N-12 roadway. The 3 acre area would not be farmable due to loss of access from the existing N-12 roadway. This represents approximately 7 percent of the total farmland acreage converted to non-farm uses by the Project.
7. Availability of Farm Support Services. Scored 5 out of 5 points. The identified farmland is within reasonable proximity to adequate farm support services within Knox County.
8. On-Farm Investments. Scored 10 out of 20 points. The ROW acquisition for the Project would affect farmland that is primarily row-crop, pasture, and grassland with little investment. Within this area, there would be a group of outbuildings associated with one farmstead that would be affected.
9. Effects of Conversion on Farm Support Services. Scored 0 out of 25 points. It is not likely that the conversion of 42.7 acres of farmland would adversely affect the demand for farm support services at the project site or within the general vicinity.
10. Compatibility with Existing Agricultural Use. Scored 0 out of 10 points. The proposed project is fully compatible to existing agricultural use of surrounding farmland and would not induce non-agricultural development in the area. The purpose of the project is to rehabilitate the N-12 roadway in the Study Area to provide a reliable transportation link on N-12 between Verdel, Niobrara, and S-54D in Nebraska that eliminates existing roadway deficiencies caused by operations of Lewis and Clark Lake and that safely accommodates current and projected traffic levels while maintaining regional connectivity. The Project would not promote any new forms of development outside of the existing land use plans.

IV. References

U.S. Department of Agriculture (USDA). 2014. 2012 Census of Agriculture. May. Available online at http://www.agcensus.usda.gov/Publications/2012/#full_report.

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